APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,537	04/27/2001	Robert W. Baxter	9266-2	3743

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EXAMINER
CORRIELUS, JEAN M

ART UNIT	PAPER NUMBER
2162	

MAIL DATE	DELIVERY MODE
02/08/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	09/844,537	BAXTER ET AL.
	Examiner	**Art Unit**	
	Jean M. Corrielus	2162	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _4/20/06_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-33_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-33_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

SUPPLEMENTAL DETAILED ACTION

1.   Please vacate the rejection mailed July 13, 2007 in light of the rejection below.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
> any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.

3.   Claims 12-33 are rejected under 35 U.S.C. 101 because the claimed invention is directed

to non-statutory subject matter.

As per claim 12, claim 12 discloses a means for communicating with a controller. According to

the specification, page 5, lines 30-33, the system as claimed is embodied in software. The

evidence is present that would suggest to one of ordinary skill that the means for is reasonably

implemented as software routines. Therefore, claim 12 fails to fall within a statutory category of

invention because it is directed to a program alone, not a machine programmed to operate in

accordance with a program in a manner which enables the program to act as a computer

component and realize its functionality.

As to claim 23, claim 23 discloses a computer program product comprising a computer readable

program medium. However, according to the specification, such computer readable program

medium can be a propagation medium, electrical wire, and paper. Applicant fails to provide an

explicit and deliberate definition of the terminology. However, the Applicant has provided

intrinsic evidence of embodiments intended to be covered within the meaning. One of the

covered embodiments is that of printed matter. Since it's not until the program is converted into

an appropriate electronic form to be read and executed by the processor that it become functional

descriptive material. This embodiment is no more that non-functional descriptive material per se,

and therefore non-statutory. Another covered embodiment is propagation media. Propagation

media in the context of this disclosure covers signals and carrier waves, which are not a

manufacture within the meaning of 101, and electrical connections and optical fibers, on which

the program is still unavailable to the processor. In such embodiments, the program is still unable

to act as a computer component and have it functionality realized. Therefore, claim 23 fails to be

limited to embodiments which fall within a statutory category.

The dependent claims 13-22 and 24-33 have inherited the deficiencies of their parent

claim and have not resolved the deficiencies. Therefore, they are rejected based on the same

rationale as applied to their parent claim above.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 1-5, 12-16 and 23-27 are rejected under 35 U.S.C. 102(e) as being anticipated by

Srinivasan et al., (hereinafter "Srinivasan") US Patent No. 6,823,336.

As to claim 1, Srinivasan discloses the claimed "storing a command for the controller in a

database, wherein the command is selected from the group of commands consisting of a write

command that is configured to write a value of a real-time process control variable to the

controller and a read command that is configured to read a value of a real-time process control

variable from the controller" (a storage controller responsive to read and write commands for

accessing specified data of a dataset in the data storage, wherein the storage controller is

programmed to respond to each set of write commands and concurrently responds to the read

commands on a priority basis, see col.3, lines 20-35); "detecting the stored command in the

database" (by detecting that the addresses of the write commands have switched from one area of

dataset revision storage to the other, see col.7, lines 4-6); and "sending the detected command to

the controller" (the write commands sent over the link, see6, lines 63-66).

As to claim 2, Srinivasan discloses the claimed "verifying that the stored command is a valid

command for the controller" (verifying that a complete set of write commands has been received

prior to the switch of the write command addresses from one area of the dataset revision storage

to the other, see col.7, lines 8-11).

As to claim 3, Srinivasan discloses the claimed "sending a write command that is configured to

write a first value of a first real-time process control variable to the controller" (Upon receipt of a

write command (from the link 22 in FIGS. 1 and 2), the secondary data storage system accesses a

directory for the write-selected storage of dataset revisions, wherein the directory is accessed to

determine whether or not the write command is accessing the same data item or data storage

location as an update existing in the write-selected storage, see col.7, lines 13-20; and in respond

to a write command received from the primary data storage system, wherein the write command

specifies an address of a data item or storage location, and data to be written to the data item or

storage location, see col.47-50); "sending a read command that is configured to read the first

value of the first real-time process control variable to the controller responsive to sending the

write command that is configured to write the first value of the first real-time process control

variable to the controller" (In respond to a read command received from the secondary host

processor, wherein the read command specifies an address of a data item or storage location, see

col.8, lines 8-12).

As to claim 4, Srinivasan discloses the claimed "receiving a response from the controller

responsive to sending the retrieved command to the controller" (verifying that a complete set of

write commands has been received prior to the switch of the write command addresses from one

area of the dataset revision storage to the other, see col.7, lines 8-11); and "updating a status of

the retrieved command sent to the controller in a command table in the database to indicate

whether the retrieved command sent to the controller succeeded or failed" (depending on

whether the address of the read command is in the dataset directory, if not, execution continues,

return an error code to the secondary host processor, and then the task is finished, otherwise, if

the address of the read command is found in the dataset directory, the storage controller reads

data from the dataset secondary storage, see 8, lines 23-30; col.12, lines 60-66).

As to claim 5, Srinivasan discloses the claimed updating a current value associated with the first

real-time process control variable in a tag table in the database with the first value of the first

real-time process control variable read from the controller responsive to receiving the response

from the controller" (col.7, lines 4-11).

As to claim 12-16:

Claims 12-16 are system claim for performing the method of claims 1-5 above. They are,

therefore, rejected under the same rationale.

As to claims 23-27:

Claims 23-27 are computer program product having computer readable codes for executing the

method of claims 1-5 above. They are, therefore, rejected under the same rationale.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

7.   Claims 1-5, 12 –16 and 23-27 are rejected under 35 U.S.C. 103 as being unpatentable

over Grudowski US Patent no. 4,319,338 and Srinivasan et al., (hereinafter "Srinivasan") US

Patent No. 6,823,336.

As to claim 1, Grudowski discloses an industrial communications network includes a microprocessor based interface circuits which each connect a controller (see abstract). In particular, Grudowski discloses the claimed "storing a command for the controller, wherein the command is selected from the group of commands consisting of a write command that is configured to write a value of a real-time process control variable to the controller and a read command that is configured to read a value of a real-time process control variable from the controller"(a communication rung data stored in the controller interface memory, which is referred as the command rung index, see col.12, lines 23-47); "detecting the stored command; and sending the detected command to the controller" (so, if the a start bit is set, a message is to be sent and the command instruction is read out of the controller memory and examined to determine whether a read, write, or bit control message is to be sent; however, if the data is to be read as determined by the decision block, then the message is formed by reading the remaining data in the command rung out of the controller, attaching a header according to the communication network protocol and storing it in a message buffer portion of the interface memory, on the other hand, if a write command is detected, an appropriate message is formed, the data in the command message is written into the specified location in the controller memory, see col.13, lines 1-17). However, Grudowski does not explicitly disclose the use of a database to store the commands. On the other hand, Srinivasan discloses data storage controller system for storing the read and write commands (see col.3, lines 19-29). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Grudowski's system by having a database to store the read and write commands in order to better manage the system performance.

As to claim 2, Grudowski discloses the claimed verifying that the stored command is a valid command for the controller (if illegal command is detected, an error code is entered in the reply message before it is sent, see col.15, lines 5-7).

As to claim 3, Grudowski discloses the claimed wherein sending the retrieved command to the controller comprises sending a write command that is configured to write a first value of a first real-time process control variable to the controller, the method further comprising: sending a read command that is configured to read the first value of the first real-time process control variable to the controller responsive to sending the write command that is configured to write the first value of the first real-time process control variable to the controller (so, if the a start bit is set, a message is to be sent and the command instruction is read out of the controller memory and examined to determine whether a read, write, or bit control message is to be sent; however, if the data is to be read as determined by the decision block, then the message is formed by reading the remaining data in the command rung out of the controller, attaching a header according to the communication network protocol and storing it in a message buffer portion of the interface memory, on the other hand, if a write command is detected, an appropriate message is formed, the data in the command message is written into the specified location in the controller memory, see col.14, lines 58-67 and col.15, lines 1-5).

As to claims 4 and 5, Grudowski discloses the claimed receiving a response from the controller responsive to sending the retrieved command to the controller (so, if the a start bit is

set, a message is to be sent and the command instruction is read out of the controller memory and

examined to determine whether a read, write, or bit control message is to be sent; however, if the

data is to be read as determined by the decision block, then the message is formed by reading the

remaining data in the command rung out of the controller, attaching a header according to the

communication network protocol and storing it in a message buffer portion of the interface

memory, on the other hand, if a write command is detected, an appropriate message is formed,

the data in the command message is written into the specified location in the controller memory,

see col.14, lines 58-67 and col.15, lines 1-5); and updating a status of the retrieved command

sent to the controller in a command table in the database to indicate whether the retrieved

command sent to the controller succeeded or failed (col.18, lines 15-29).

Allowable Subject Matter

8.   Claims 6-11, 17-22 and 28-33 would be allowable if rewritten to overcome the

rejection(s) under 35 U.S.C. 101, set forth in this Office action and to include all of the

limitations of the base claim and any intervening claims.

Reasons for Indicating Allowable Subject Matter

9.   The following is an examiner's statement of reasons for allowance: Upon searching a

variety of databases, the examiner respectfully submits that "providing a tag table in the database

that comprises definitions of a plurality of real-time process control variables, wherein each of

the plurality of real-time process control variables is associated with a monitoring frequency and

a current value; periodically sending a read command that is configured to read a value of a real-time process control variable for respective ones of the plurality of real-time process control variables from the controller based on the respective monitoring frequencies; and updating the respective current values for respective ones of the plurality of real-time process control variables with the respective values of the real-time process control variables read from the controller" in conjunction with all other limitations of the independent claims are not taught nor suggested by the prior art of record (PTO-892 and 1449). Therefore, pending claims 6-11, 17-22 and 28-33 are hereby allowed.
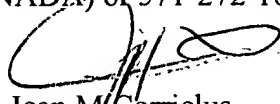
Conclusion

10.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean M. Corrielus whose telephone number is (571) 272-4032. The examiner can normally be reached on 10 hours shift.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jean M Corrielus
Primary Examiner
Art Unit 2162

February 7, 2008